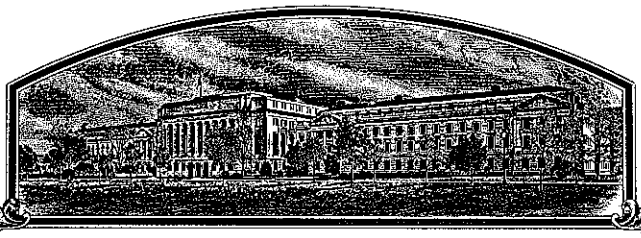

No. 9100131

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Ciba-Geigy Seeds Division

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT ETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT T. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'3615'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 31st *day of* August *in the year of our Lord one thousand nine hundred and* ninety-two.

Attest:

Kenneth B Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan

Secretary of Agriculture

FORM APPROVED: OMB 0581-0055, Expires 1/31/91

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Ciba-Geigy Seeds Division

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO.
3595

3. VARIETY NAME
3615

4. ADDRESS *(street and no. or R.F.D. no., city, state, and ZIP)*
P. O. Box 18300
Greensboro, NC 27419-8300

5. PHONE *(Include area code)*
(919) 547-1000

FOR OFFICIAL USE ONLY

PVPO NUMBER
9100131

FILING
Date: Mar. 5 1991
Time: ☑ A.M. ☐ P.M.

FEES RECEIVED
Filing and Examination Fee: $ 2150.-
Date: Mar. 5, 1991
Certificate Fee: $ 250.-
Date: Aug. 10, 1992

6. GENUS AND SPECIES NAME
Glycine max

7. FAMILY NAME *(Botanical)*
Leguminosae

8. CROP KIND NAME *(Common Name)*

9. DATE OF DETERMINATION
October, 1983

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
New York

12. DATE OF INCORPORATION
1966

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Dr. Robert B. Hunter
Ciba-Geigy Seeds Division
P. O. Box 18300
Greensboro, NC 27419-8300
PHONE *(Include area code)*: (919) 547-1000

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow INSTRUCTIONS on reverse)*

a. ☒ Exhibit A, Origin and Breeding History of the Variety.
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety.
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.
f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office _____.
g. ☒ Filing and Examination Fee ($2,150) made payable to "Treasurer of the United States."

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See section 83(a) of the Plant Variety Protection Act.)*
☐ YES *(If "YES," answer items 16 and 17 below)* ☒ NO *(If "NO," skip to item 18 below)*

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ YES *(If "YES," through* ☐ Plant Variety Protection Act ☐ Patent Act. Give date: _____.)
☒ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "YES," give names of countries and dates)
☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE
CIBA-GEIGY Seed Division BY:	Vice President of Research	Sept 18, 1990
SIGNATURE OF APPLICANT *(Owner(s))*	CAPACITY OR TITLE	DATE

EXHIBIT A

CIBA-GEIGY SEEDS DIVISION'S APPLICATION FOR 3615

Origin and Breeding History of the Variety

3615 originated from the cross DPX 403 X DP 345. DPX 403 was later named to DP 105 before it was marketed. This cross was made in 1978. The pedigree method of breeding was employed in selecting this variety. The early generations of this line were planted and observed in progeny rows through 1982. In 1983, an F_5 plant row was bulked for preliminary yield testing in 1984. In 1985, this line, then known as 1651, moved on to advanced strains testing for one year. For the next four years, 1986 through 1989, 3615 was tested as experimental number 3595 in merit yield tests.

3615 has been evaluated for six years in replicated yield tests. 3615 is uniform and stable for all observable characteristics.

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EXHIBIT B

CIBA-GEIGY SEED DIVISION'S APPLICATION FOR 3615

Novelty Statement

3615 is most similar to the variety DP 105, which is one of the parents. The principal difference between 3615 and DP 105 are seed coat luster and reaction to frogeye leaf spot, *Cercospora sojina*, and stem canker, *Diporthe phaseolorum* var. *caulivora*.

3615 has shiny seed coats and is resistant to frogeye leaf spot (specific races unknown but races present at Ripley, TN and Lake Providence, LA in 1989) and susceptible to stem canker, whereas DP 105 has dull seed coats, is susceptible to frogeye leaf spot and is moderately resistant to stem canker.

APPLICATION NO. 9100131 SOYBEAN
'3615'

Additional statement from the examiner

This application arrived with a considerable amount of data taken from grow-out trials and similar experiments. While this data is useful, there is not room to accommodate it in the actual certificate. Therefore, it has been placed in the application folder.

ANY REQUEST FOR A COPY OF THIS CERTIFICATE SHOULD INCLUDE THE INFORMATION MENTIONED ABOVE.

Jeffrey L. Strachan

Jeffrey L. Strachan, Examiner

31 August 1992

SUPPLEMENT TO APPLICATION FORM

EXPLANATION OF SYSTEM FOR NUMBERING TABLES

Tables connected with each exhibit are designated by the letter for that exhibit. Example "B".

Summary tables (those on which claims are based and information summarized) have the exhibit letter followed by a Roman numeral. For example, "TABLE B I - AVERAGE DATA FOR 20 TESTS CONDUCTED IN MISSISSIPPI, TENNESSEE, ARKANSAS, LOUISIANA, VIRGINIA, NORTH CAROLINA AND SOUTH CAROLINA IN 1988 AND 1989".

Tables of performance in individual tests are used to bring together results from different years and locations. These data are used to calculate averages for varieties in years to be combined in a summary. These tables have an exhibit letter, B, followed by a summary table number, I, and a capital letter, A. For example, "TABLE B I A - AVERAGE DATA FOR 13 TESTS CONDUCTED IN MISSISSIPPI, TENNESSEE, ARKANSAS, LOUISIANA, VIRGINIA, NORTH CAROLINA AND SOUTH CAROLINA IN 1989" AND "TABLE B I B - AVERAGE DATA FOR 7 TESTS CONDUCTED IN MISSISSIPPI, TENNESSEE, ARKANSAS AND LOUISIANA IN 1988".

Additional Division summaries within the yearly summary are designated by an Arabic numeral. For example, "TABLE B I A 1 - AVERAGE DATA FOR 6 TESTS CONDUCTED IN NORTH CAROLINA, SOUTH CAROLINA AND VIRGINIA IN 1989" AND "TABLE B I A 2 - AVERAGE DATA FOR 7 TESTS CONDUCTED IN MISSISSIPPI, TENNESSEE, ARKANSAS AND LOUISIANA IN 1989".

Copies of original tables of test results from which TABLE B I A 1 is prepared are designated by a lower case letter. For example, "TABLE B I A 1a - 1989 LATE V MERIT TEST - KENLY, NC - 89CP021".

Copies of original test data collected by our Research Department are not included. These tables may contain data which is confidential but are available if necessary.

This system makes it easy to find the data on which any exhibit is based.

FORM APPROVED: OMB NO. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (Glycine max L.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Ciba-Geigy Seeds Division	3595	3615

ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*
P. O. Box 18300
Greensboro, NC 27419-8300

FOR OFFICIAL USE ONLY
PVPO NUMBER
9100131

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., [0][9]).

1. SEED SHAPE:

[1]

1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

2. SEED COAT COLOR: (Mature Seed)

[1] 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other *(Specify)* _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

[2] 1 = Dull ('Corsoy 79'; 'Braxton') 2 = Shiny ('Nebsoy'; 'Gasoy 17')

4. SEED SIZE: (Mature Seed)

[1][4] Grams per 100 seeds

5. HILUM COLOR: (Mature Seed)

[5] 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other *(Specify)* _____

6. COTYLEDON COLOR: (Mature Seed)

[1] 1 = Yellow 2 = Green

7. SEED PROTEIN PEROXIDASE ACTIVITY:

[1] 1 = Low 2 = High

8. SEED PROTEIN ELECTROPHORETIC BAND:

[2] 1 = Type A ($SP1^a$) 2 = Type B ($SP1^b$)

9. HYPOCOTYL COLOR:

[3] 1 = Green only ('Evans'; 'Davis') 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')
3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')
4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

10. LEAFLET SHAPE:

[3] 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other *(Specify)* _____

11. LEAFLET SIZE:

[2] 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17')
3 = Large ('Crawford'; 'Tracy')

12. LEAF COLOR:

[3] 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton')
3 = Dark Green ('Gnome'; 'Tracy')

13. FLOWER COLOR:

[2] 1 = White 2 = Purple 3 = White with purple throat

14. POD COLOR:

[1] 1 = Tan 2 = Brown 3 = Black

15. PLANT PUBESCENCE COLOR:

[1] 1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

[2] 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton')
3 = Bushy ('Gnome'; 'Govan')

17. PLANT HABIT:

[1] 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will')
3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

18. MATURITY GROUP:

[0][9] 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V
9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

[2] Bacterial Pustule *(Xanthomonas phaseoli* var. *sojensis)*

[0] Bacterial Blight *(Pseudomonas glycinea)*

[2] Wildfire *(Pseudomonas tabaci)*

FUNGAL DISEASES:

[0] Brown Spot *(Septoria glycines)*

Frogeye Leaf Spot *(Cercospora sojina)*

[ ] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [2] Other *(Specify)* Races Unknown

[0] Target Spot *(Corynespora cassiicola)*

[0] Downy Mildew *(Peronospora trifoliorum* var. *manshurica)*

[0] Powdery Mildew *(Microsphaera diffusa)*

[0] Brown Stem Rot *(Cephalosporium gregatum)*

[1] Stem Canker *(Diaporthe phaseolorum* var. *caulivora)*

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19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

[0] Pod and Stem Blight *(Diaporthe phaseolorum* var; *sojae)*

[0] Purple Seed Stain *(Cercospora kikuchii)*

[0] Rhizoctonia Root Rot *(Rhizoctonia solani)*

Phytophthora Rot *(Phytophthora megasperma* var. *sojae)*

[1] Race 1 [1] Race 2 [0] Race 3 [0] Race 4 [0] Race 5 [0] Race 6 [0] Race 7

[0] Race 8 [0] Race 9 [0] Other *(Specify)* _____

VIRAL DISEASES:

[0] Bud Blight (Tobacco Ringspot Virus)

[0] Yellow Mosaic (Bean Yellow Mosaic Virus)

[0] Cowpea Mosaic (Cowpea Chlorotic Virus)

[0] Pod Mottle (Bean Pod Mottle Virus)

[0] Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode *(Heterodera glycines)*

[1] Race 1 [1] Race 2 [1] Race 3 [1] Race 4 [ ] Other *(Specify)* _____

[0] Lance Nematode *(Hoplolaimus Colombus)*

[1] Southern Root Knot Nematode *(Meloidogyne incognita)*

[0] Northern Root Knot Nematode *(Meloidogyne Hapla)*

[1] Peanut Root Knot Nematode *(Meloidogyne arenaria)*

[0] Reniform Nematode *(Rotylenchulus reniformis)*

[ ] OTHER DISEASE NOT ON FORM *(Specify):* _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] Iron Chlorosis on Calcareous Soil

[ ] Other *(Specify)* _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] Mexican Bean Beetle *(Epilachna varivestis)*

[0] Potato Leaf Hopper *(Empoasca fabae)*

[ ] Other *(Specify)* _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	DP 105	Seed Coat Luster	Stafford
Leaf Shape	DP 105	Seed Size	DP 105
Leaf Color	DP 105	Seed Shape	DP 105
Leaf Size	DP 345	Seedling Pigmentation	DP 105

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
3615 Submitted	142	2.1	96.5			39.3	21.6	14.3	
DP 105 Name of Similar Variety	141	2.5	91.4			40.3	21.8	15.7	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A_2 in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

EXHIBIT D

CIBA GEIGY SEEDS DIVISION'S APPLICATION FOR 3615

Additional Description of the Variety

3615 is an early group VI soybean which matures about 1-2 days later than Deltapine 105, 6 days earlier than Centennial, 5 days earlier than Asgrow 6785, and 3 days earlier than Young.

Characteristics of 3615 are most similar to Deltapine 105 as compared to other cultivars. It has purple flowers, gray pubescence, and tan pods at maturity. Foliage is a dark green color with ovate leaves that generally are more narrow than Deltapine 105. Seeds of 3615 are dull yellow with imperfect black hila that average 3,194 seed per pound as compared to 3,436 seed per pound for Deltapine 105. Plants of 3615 average slightly taller (96.5 cm) than Deltapine 105 (91.4 cm).

3615 is susceptible to Phytophthora root rot race 1 caused by *Phytophthora megasperma* var. *sojae* when the hypocotyl innoculation method of screening is used. It also shows greater susceptibility to *Diaporthe phaseolorum* var. *caulivora*, which causes stem canker, with a score of 4.7 as compared to 1.7 for Deltapine 105, where a score of 1.0 equals no symptoms and 5.0 equals all plants completely infected. Also 3615 has shown excellent resistance to frogeye leaf spot whereas Deltapine 105 is susceptible.

As stated above, 3615 has purple flowers. 3615 has up to one (1) plant with white flowers in 5,000 plants. 3615 has a gray pubescence with up to one (1) plant with tawny pubescence in 5,000 plants.

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EXHIBIT E

CIBA-GEIGY SEED DIVISION'S APPLICATION FOR 3615

Statement of the Basis of Applicant's Ownership

Ciba-Geigy Seed Division is the owner of 3615 through purchase of the variety from the originator of the variety.